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Exhibit R-2, RDT&E Budget Item Justification						Date: February 1999				
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-4						R-1 ITEM NOMENCLATURE Program Element (PE) Name and No. 0603795N Gun Weapons Systems Technology				

COST (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Total P.E. Cost	61.282	78.858	101.489	93.494	71.505	51.102	52.283	53.403	CONT	CONT
NTACMS/J2241*	0	0	0	0	0	0	0	0	0	0
NSFS/K2156	58.582	51.807	52.637	40.430	31.303	32.163	32.928	33.623	CONT	CONT
VGAS/K2323**	0	0	0	0	0	0	0	0	0	0
NFCS/K2325	0	19.069	27.014	30.527	25.646	18.939	19.355	19.780	CONT	CONT
LASM/K2409	2.700	0	21.838	22.537	14.556	0	0	0	0	61.631
ERGM/K2624***	0	7.982	0	0	0	0	0	0	0	7.982
Quantity of RDT&E Articles & cost			90/8	12						

*NTACMS Funding Terminated.

**Funds Transferred to PE 0603513N/Project 32467.

***FY-1999 Congressional Plus up.

- A. (U) Mission Description and Budget Item Justification: The Gun Weapons Systems Technology line supports the Naval Surface Fire Support (NSFS) mission. In order to meet the United States Marine Corp (USMC) requirements for NSFS in support of Operational Maneuvers from the Sea (OMFTS), the Navy is developing a variety of weapons systems that can provide the required range, lethality, accuracy, and responsiveness. NSFS systems being developed include both gun and missile systems. Gun systems include the 5"/62 gun (a modification of the existing 5"/54 gun); a 5" Extended Range Guided Munitions (ERGM) with a coupled internal Global Positioning and Inertial Navigation System capable of delivering a submunition payload to a range of 63 NM; an Advanced Gun System (AGS) for the next generation surface combatant (DD21); and propelling charge improvements. In order to satisfy USMC requirements for longer range, responsive fire support, the Navy is developing a land attack variant of the Land Attack Standard Missile (LASM). The Naval Fires Control System (NFCS) will support mission planning for 5"/62 – ERGM, and LASM. It will automate shipboard land attack battle management duties to be interoperable and consistent with joint C4ISR systems. These shipboard weapon systems will significantly improve the Navy's ability to support OMFTS. This program element also includes the transition of ATD's and P³Is into the NSFS program.

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APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-4	R-1 ITEM NOMENCLATURE Program Element (PE) Name and No. 0603795N Gun Weapons Systems Technology	

B. (U) Program Change Summary:	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>
FY 1999 President's Budget:	58.998	110.104	121.051
Appropriated Value:	60.874		
Adjustment to FY 1998 Appropriated Value/ FY 1999 President's Budget:	+408	-31.246	-19.562
FY 2000/01 President's Budget Submit:	61.282	78.858	101.489
Funding: Moved VGAS funding to new PE within DD 21 PEO			-40.138
Terminated NTACMS funding		-11.301	-10.573
Added LASM funding.			+22.176
Added ERGM stability reserve			+14.300
ERGM Re-programming	+3.999		
Cancel LAW-DC			- 4.014
FY99 Congressional Transfer: ERGM		+ 8.000	
FY99 Congressional Cut: NFCS		- 2.500	
FY98/99 Comparability Adj. - VGAS		-25.134	
FY99 Congressional Cut: VGAS		-10.000	
Restructured and Comparability Adj.: VGAS		+10.000	
PBD 752: Above Core/Program Mod Accel			
PBD 606: Civilian Pay Rates			+0.188
PBD 604: Non-Pay Inflation			-1.469
SBIR Reduction	- 1.212		
Various Adjustments	- 2.379	-.311	- 0.145
Outsourcing Reduction			- 0.177
Schedule: N/A			
Technical: N/A			

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Exhibit R-2a, RDT&E Project Justification			Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-4	Program Element Name & No. 0603795N Gun Weapons Systems Technology	Project Name and Number. Naval Surface Fire Support.....K2156	

Cost (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Project Cost	58.582	51.807	52.637	40.430	31.303	32.163	32.928	33.623	CONT	CONT
RDT&E Articles Qty			90							

A. (U) Mission Description and Budget Item Justification: These funds provide for the development of the 5"/62 Extend Range Guided Munition (ERGM) weapons systems which consists of a: 5" MK 45 gun modification which strengthens the gun to accommodate higher firing loads (18 megajoules) to fire the EX 171 Extended Range Guided Munition (ERGM); ERGM, a 5" munition with an internal Global Positioning System receiver coupled with an inertial Navigation System capable of delivering a submunitions to a range of 63NM; a gun fire control system which updates the MK 160 MOD 7 to a MOD 8 providing direct digital interface with the gun as well as the ERGM; and an upgraded propelling charge to provide the higher gun firing energy required by ERGM. This project also includes the transition of ATDs and P³Is into the NSFS envelope.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1998 ACCOMPLISHMENTS:

- (U) (\$26.936) Continued development of EX-171 EDMs for ERGM.
- (U) (\$ 2.504) Continued development of EX-171 Advanced Solid Propelling Charge. Achieved 18 megajoules capability.
- (U) (\$14.208) Continued development of 5" MK 45 Modification and GFP preparation. Delivered prototype gun, 3rd QTR.
- (U) (\$ 4.165) Continued development of Gun Fire Control Modification and required interfaces.
- (U) (\$.771) Analyzed life cycle costs and evaluated tradeoffs.
- (U) (\$ 9.998) Continued development and engineering analysis of the Army ATACM missile integration onto naval platforms to meet Marine Corps requirements.

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Exhibit R-2a, RDT&E Project Justification		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-4	Program Element Name & No. 0603795N Gun Weapons Systems Technology	Project Name and Number. Naval Surface Fire Support.....K2156

2. (U) FY 1999 PLAN:
- (U) (\$30.664) Continue development of EX-171 EDMs for ERGM. Test rocket motor and component integration.
 - (U) (\$ 2.983) Continue development of EX-171 Advanced Solid Propelling Charge.
 - (U) (\$11.768) Continue development of 5" MK 45 Modification and GFP preparation. Commence test firing.
 - (U) (\$ 4.117) Continue development of the Gun Fire Control Modification and required interfaces.
 - (U) (\$ 1.468) Analyze life cycle costs and evaluated tradeoffs.\
 - (U) (\$.807) Portion of extramural program is reserved for Small Business Innovation Research Assessment in accordance with 15 USC 638.
3. (U) FY 2000 PLAN:
- (U) (\$37.715) Continue development of EX-171 EDMs for ERGM. Start ERGM LRIP deliveries.
 - (U) (\$.552) Continue development of EX-171 Advanced Solid Propelling Charge.
 - (U) (\$ 5.901) Continue development of 5" MK 45 Modification and GFP preparation.
 - (U) (\$ 3.229) Continue development of the Gun Fire Control modification and required interfaces.
 - (U) (\$ 1.640) Analyze life cycle costs and evaluated tradeoffs
 - (U) (\$ 3.600) Procure 90 LRIP ERGMs in support of OPEVAL.

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Exhibit R-2a, RDT&E Project Justification			Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-4	Program Element Name & No. 0603795N Gun Weapons Systems Technology	Project Name and Number. Naval Surface Fire Support.....K2156	

B. (U) Other Program Funding Summary:

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>To Complete</u>	<u>Total Cost</u>
PAN,MC	0	27.395	3.004	24.500	45.269	70.395	71.685	97.389	CONT.	CONT.

(U) Related RDT&E,N: N/A

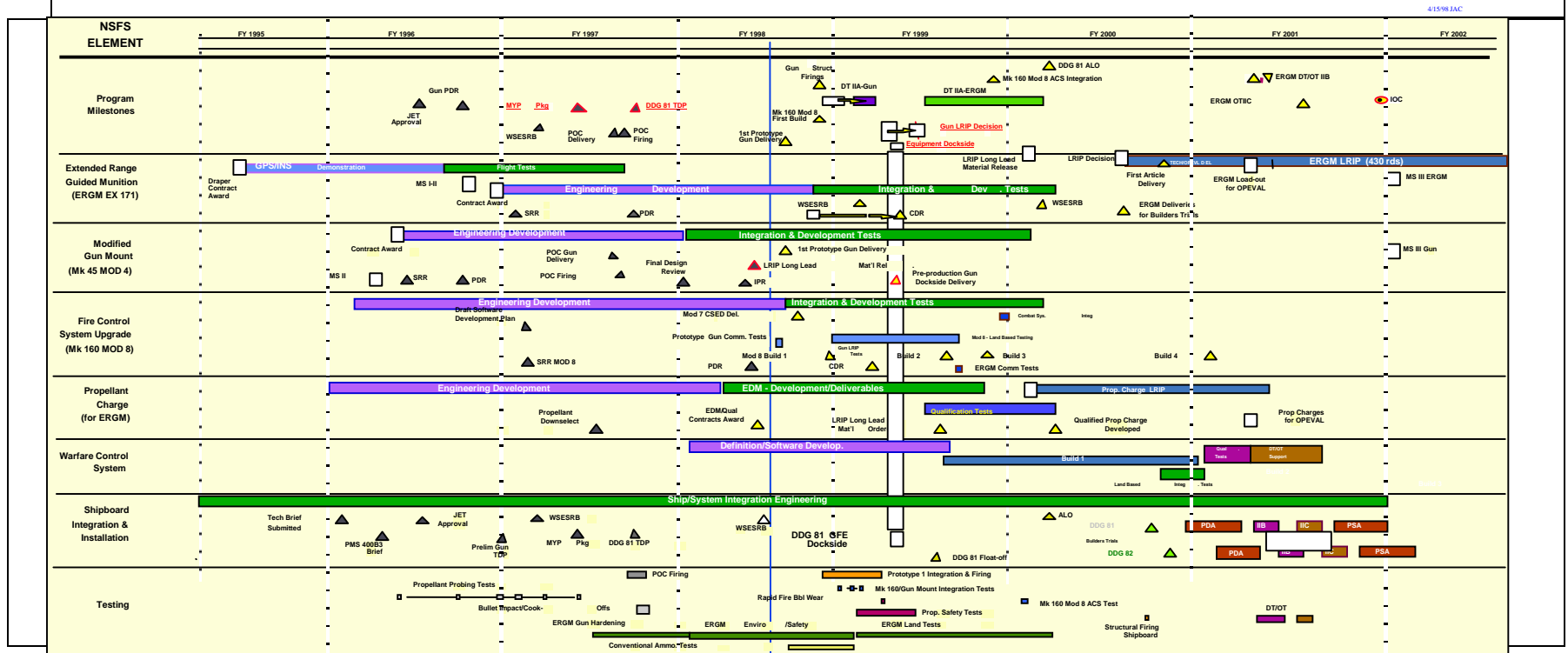
C. (U) Acquisition Strategy: A competition was held in FY 96 for the ERGM. It resulted in an award to Texas Instruments (now Raytheon Systems Company) with a corporate investment of 47.5% of development cost. The gun is being developed under a sole source arrangement with United Defense, the current MK 45 MOD 2 producer. The Fire Control (MK 160) and the propelling charge are being developed by NSWC since they are modifications to current government owned/supplied equipment.

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Exhibit R-2a, RDT&E Project Justification			Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-4	Program Element Name & No. 0603795N Gun Weapons Systems Technology	Project Name and Number. Naval Surface Fire Support.....K2156	

D. (U) Schedule Profile:



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Exhibit R-2a RDT&E Project Justification
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Exhibit R-3 Cost Analysis		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-4	PROGRAM ELEMENT NAME AND NUMBER 0603795N Gun Weapons System Technology	PROJECT NAME AND NUMBER Naval Surface Fire Support.....K2156

Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date			Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	CPFF	UDLP, Minneapolis, MN	42.961	8.517	10/98	3.865	10/99			CONT	CONT	44.726
	CPAF/IF	Raytheon Texas Inst., Lewisville, TX	33.237	18.282	10/98	24.212	10/99			CONT	CONT	66.809
	WR	NSWC Dahlgren, VA	39.999	14.854	10/98	7.195	10/99			CONT	CONT	N/A
	WR	NWSC Indian Head, MD	11.024	2.052	10/98	1.136	10/99			CONT	CONT	N/A
	WR	NSWC Port Hue, CA	23.096	2.831	10/98	2.903	10/99			CONT	CONT	N/A
Ancillary Hardware Development												
Systems Engineering	VAR	Miscellaneous	48.357	4.473	10/98	2.884	10/99			CONT	CONT	N/A
Licenses												
Tooling												
GFE												
Award Fees	CPAF/IF	Raytheon Texas Inst., Lewisville, TX	1.123	.698	12/98 06/99	.148	12/99 06/00			1.01	2.070	2.070
Subtotal Product Development			199.797	51.707		42.343				CONT	CONT	CONT
Remarks: The budget for each development contract is higher than the target value based on the program managers estimate of what will be needed to cover changes to requirements and cost growths.												

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Exhibit R-3 Project Cost Analysis
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Exhibit R-3 Cost Analysis		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-4	PROGRAM ELEMENT NAME AND NUMBER 0603795N Gun Weapons System Technology	PROJECT NAME AND NUMBER Naval Surface Fire Support.....K2156

Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date			Cost To Complete	Total Cost	Target Value of Contract
Development Support Equipment												
Software Development												
Training Development												
Integrated Logistics Support												
Configuration Management												
Technical Data												
GFE												
Subtotal Support												
Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date			Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	CP	Raytheon Texas Ins., Lewisville, TX	0	0		3.600	11/00			0	3.600	3.600
Development Test & Evaluation	WR	NSWC Dahlgren, VA	0	0		6.594	10/00			CONT.	CONT	
Operational Test & Evaluation												
Tooling												
GFE												
Subtotal T&E			0	0		10.194				CONT.	CONT	

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Exhibit R-3 Cost Analysis		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-4	PROGRAM ELEMENT NAME AND NUMBER 0603795N Gun Weapons System Technology	PROJECT NAME AND NUMBER Naval Surface Fire Support.....K2156

Remarks												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date			Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support												
Government Engineering Support		VARIOUS	0	0		0				CONT	CONT	
Program Management Support		VARIOUS	0	0		0				CONT	CONT	
Program Management Personnel												
Travel	PD	NAVSEA HQ	.223	.100	VAR	.100	VAR			CONT	CONT	
Labor (Research Personnel)												
Overhead												
Subtotal Management			.223	.100	VAR	.100	VAR			CONT	CONT	
Remarks:												
Total Cost			200.020	51.807		52.637				CONT	CONT	CONT

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Exhibit R-2a, RDT&E Project Justification			Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-4	Program Element Name & No. 0603795N Gun Weapons Systems Technology	Project Name and Number. Naval Fires Control System.....K2325	

Cost (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Project Cost	0	19.069	27.014	30.527	25.646	18.939	19.355	19.780	CONT	CONT
RDT&E Articles Qty										
<p>A. (U) Mission Description and Budget Item Justification: Naval Fires Control System (NFCS) covers the mission planning and coordination for future Naval Surface Fire Support system requirements. NFCS will plan, coordinate and manage the firing of the new Naval Surface Fires Support (NSFS) weapon systems including the 5"/62 caliber gun and the Land Attack Standard Missile (LASM). It will be available to amphibious ships, command ships, and the DD-21 program if selected by the full service contractor. The software may ultimately be integrated into future Tactical TOMAHAWK Weapons Control Systems (TTWCS) but will initially be hosted in the existing combat suite on DDG-81 for fleet introduction in 2001. Prototyping, demonstrations and development will be conducted during FY 99 and FY 00.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. (U) FY 1998 ACCOMPLISHMENTS: N/A.</p> <p>2. (U) FY 1999 PLAN:</p> <ul style="list-style-type: none"> (U) (\$13.119) Software development and system engineering to include analysis, design and reuse of existing government and commercial computer programs to support ERGM, LASM, and other naval weapon applications. (U) (\$ 4.050) Identify and configure hardware configuration to support NFCS implementation. (U) (\$ 1.600) Independent validation and verification, joint requirements investigation, Concept of Operations (CONOPS) scenario development. (U) (\$.300) C4I and combat system interface investigation and analysis to include Battle Force Tactical Trainer (BFTT), LINK 16, TTWCS and other developing C4I system and technology. 										

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Exhibit R-2a, RDT&E Project Justification		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-4	Program Element Name & No. 0603795N Gun Weapons Systems Technology	Project Name and Number. Naval Fires Control System.....K2325

3. (U) FY 2000 PLAN:

- (U) (\$17.082) Software and system engineering to include analysis, development, reuse and integration of government and commercial computer programs to support ERGM, LASM and other naval weapon applications.
- (U) (\$ 5.880) Support hardware configuration to support NFCS implementation. Support DT Validation.
- (U) (\$ 1.930) Independent validation and verification, joint requirements investigation, Concept of Operations (CONOPs) scenario development.
- (U) (\$ 1.700) C4I and combat system interface investigation and analysis to include BFTT, Link 16, TTWCS and other developing C4I system and technology.
- (U) (\$.422) Portion of extramural program is reserved for Small Business Innovation Research Assessment in accordance with 15 USC 638.

B. (U) Other Program Funding Summary: N/A

(U) Related RDT&E,N: N/A

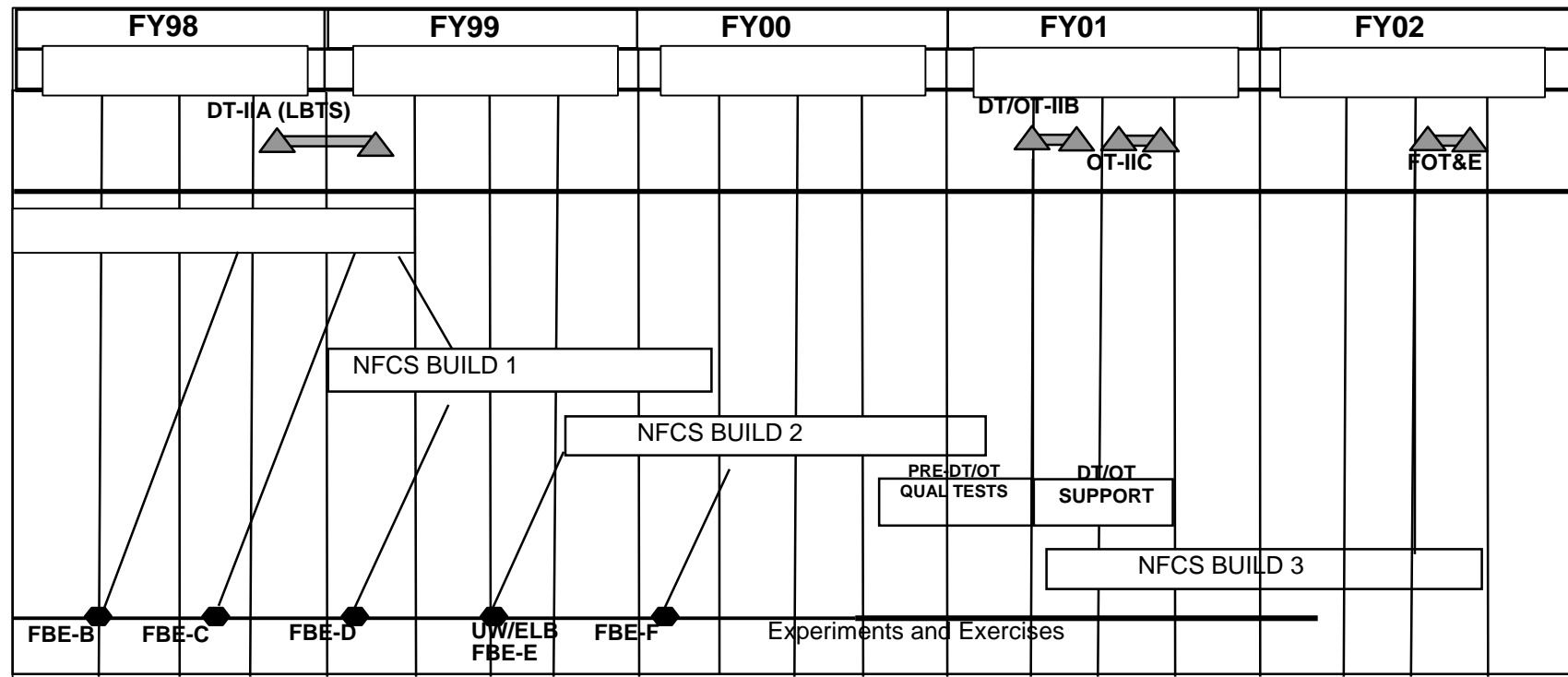
C. (U) Acquisition Strategy: The acquisition strategy has not yet been approved. The strategy will be to perform prototyping efforts and to award a competitive contract for software development. The TTWCS contractor assisted by the NFCS developer will integrate NFCS into TTWCS.

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Exhibit R-2a, RDT&E Project Justification		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-4	Program Element Name & No. 0603795N Gun Weapons Systems Technology	Project Name and Number. Naval Fires Control System.....K2325

D. (U) Schedule Profile



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Exhibit R-3 Cost Analysis		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-4	PROGRAM ELEMENT NAME AND NUMBER 0603795N Gun Weapons System Technology	PROJECT NAME AND NUMBER Naval Fires Control System.....K2325

Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total <u>PYs</u> Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date			Cost To Complete	Total Cost	Target Value of Contract
Primary Software Development	TO/CPFF	ITC, Arlington, VA		12.199	01/99					TBD	TBD	TBD
Primary Software Development	CM/CPFF	TBD				15.674	10/99			TBD	TBD	TBD
Ancillary Hardware Development	SS/CP	Lockheed Martin, MD				5.147	10/99			TBD	TBD	TBD
Ancillary Hardware Development	VAR	VARIOUS								CONT	CONT	
Systems Engineering	WR	SSC/SD		3.000	11/98	1.314	10/99			CONT	CONT	
Systems Engineering	SS/CP	VITRO		.300	02//99	1.700	10/99			TBD	TBD	TBD
Licenses												
Tooling												
GFE												
Award Fees												
Subtotal Product Development			0	15.499		23.835				CONT	CONT	
Remarks:												
Development Support Equipment												
Software Development	WR	NSWC.Dahlgren, VA		2.500	11/98	1.015	10/99			CONT	CONT	
Training Development												
Integrated Logistics Support	VAR	VARIOUS		.970	11/98	1.840	10/99			CONT	CONT	
Configuration Management												
Technical Data												
GFE												
Subtotal Support			0	3.470		2.855				CONT	CONT	

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Exhibit R-3 Project Cost Analysis
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Exhibit R-3 Cost Analysis		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-4	PROGRAM ELEMENT NAME AND NUMBER 0603795N Gun Weapons System Technology	PROJECT NAME AND NUMBER Naval Fires Control System.....K2325

Remarks:												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date			Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NSWC/PT HUE,CA				.250	10/99			CONT	CONT	
Operational Test & Evaluation												
Tooling												
GFE												
Subtotal T&E			0	0		.250				CONT	CONT	
Remarks:												
Contractor Engineering Support												
Government Engineering Support												
Program Management Support												
Program Management Personnel												
Travel	PD	NAVSEA HQ	0	.100	VAR	.100	VAR			CONT	CONT	
Labor (Research Personnel)												
Overhead												
Subtotal Management			0	.100		.100				CONT	CONT	
Remarks:												
Total Cost			0	19.069		27.040				CONT	CONT	
Remarks												

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Exhibit R-3 Project Cost Analysis
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Exhibit R-2a, RDT&E Project Justification			Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-4	Program Element Name & No. 0603795N Gun Weapons Systems Technology	Project Name and Number. Land Attack Missile.....K2409	

Cost (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Project Cost	2.700	0	21.838	22.537	14.556	0	0	0	0	61.631
RDT&E Articles Qty			8	12						

A. (U) Mission Description and Budget Item Justification: This project funds the Land Attack Standard Missile (LASM) (SM-4) program to provide Naval Surface Fire Support to Ground Combat Elements. The major efforts involved are systems integration and testing. Systems integration consists of integrating GPS/INS guidance, height of burst sensors, and warhead modifications to optimize effects against ground element targets into existing SM-2 missiles (refurbished as necessary). Testing will include ground, captive carry and flight tests to demonstrate safety, accuracy, anti-jamming capability, resistance, and lethality. RDT&E,N articles include inert operational missiles for ground and captive carry testing and complete all up rounds for flight testing.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1998 ACCOMPLISHMENTS:

- (U) (\$ 2.000) Developed proto- flight test hardware including GPS/INS package.
- (U) (\$.700) Tested prototype hardware and plan for next testing round.

2. (U) FY 1999 PLAN: N/A

3. (U) FY 2000 PLAN:

- (U) (\$20.988) Continue development of prototype flight test hardware including GPS/INS package.
- (U) (\$.850) Test prototype hardware and plan for next testing round.

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Exhibit R-2a, RDT&E Project Justification		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-4	Program Element Name & No. 0603795N Gun Weapons Systems Technology	Project Name and Number. Land Attack Missile.....K2409

B. (U) Other Program Funding Summary:

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	To <u>Complete</u>	Total <u>Cost</u>
WPN	0	0	0	0	11.7	26.0	31.6	34.2	158.8	262.3
O&MN	0	0	0	0	1.0	2.6	3.5	4.1	111.0	122.2

(U) Related RDT&E,N: N/A

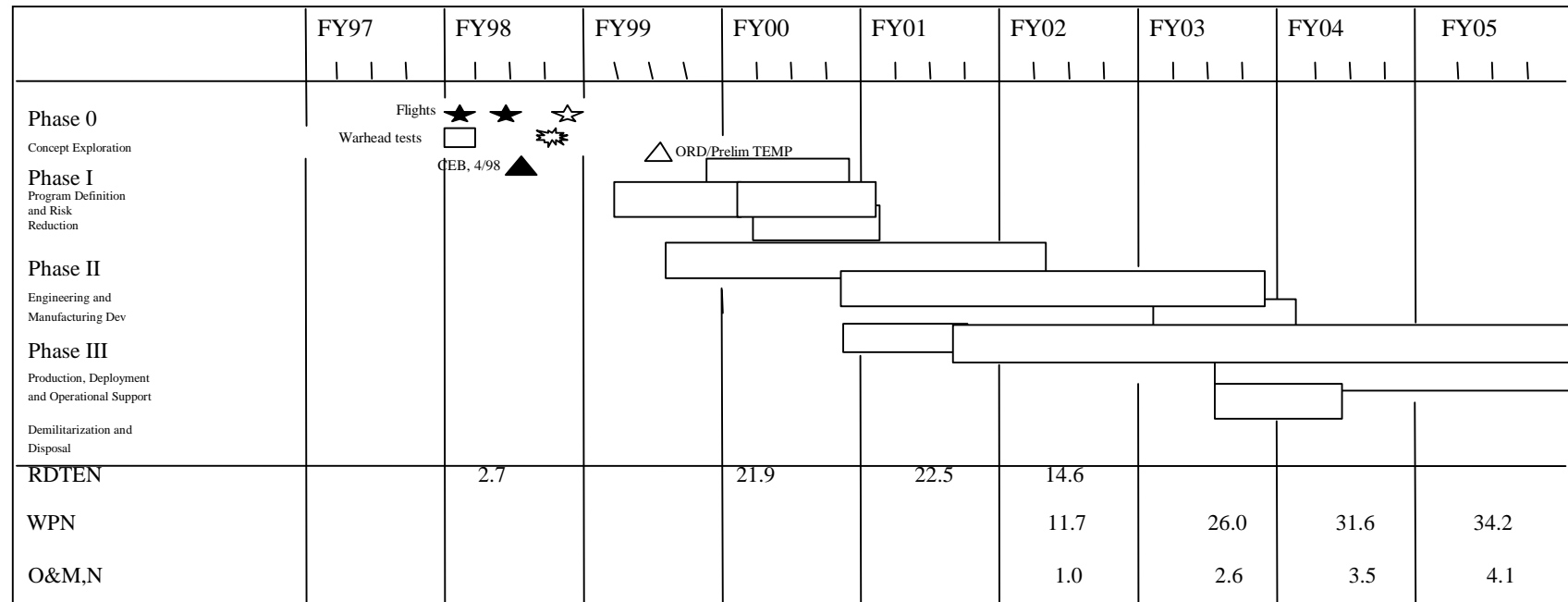
C. (U) Acquisition Strategy: Pre EMD testing and engineering efforts will be conducted under level of effort contracts with the OEM. An E&MD completion contract will be awarded competitively to integrate the capability improvements into and refurbish as necessary existing SM-2 Block II missiles and to support DT/OT. The GFM will be refurbished during this process and, with capability improvement, will become the Land Attack Standard Missile (SM-4).

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Exhibit R-2a, RDT&E Project Justification			Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-4	Program Element Name & No. 0603795N Gun Weapons Systems Technology	Project Name and Number. Land Attack Missile.....K2409	

D. (U) Schedule Profile



Legend: ★ Flight Test □ Warhead test (static)

Note: * Option exists for this to be full rate instead of LRIP if MS III is accomplished early.

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Exhibit R-3 Cost Analysis		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-4	PROGRAM ELEMENT NAME AND NUMBER 0603795N Gun Weapons System Technology	PROJECT NAME AND NUMBER Land Attack Missile System.....K2409

Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total Pys Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date			Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development												
Ancillary Hardware Development	WR	NSWC/Dahlgren, VA	.700			1.400	10/99			1.300	3.400	
	WR	VAR	.100			.298	10/99			.402	.800	
Systems Engineering	CPFF	VAR	.300			.500	10/99			1.174	1.974	
	SS/CPAF	Raytheon Missile Systems Co., Tucson, Az	.890			18.140	10/99			26.442	45.472	TBD
Licenses												
Tooling												
GFE												
Award Fees												
Subtotal Product Development			1.990	0		20.338				29.318	51.646	
Remarks												
Development Support Equipment												
Software Development												
Training Development												
Integrated Logistics Support	WR	VAR	0			.080	10/99			.260	.340	
Configuration Management	WR	VAR	0			.120	10/99			.390	.510	
Technical Data												
GFE												
Subtotal Support			0	0		.200				.650	.850	
Remarks:												

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Exhibit R-3 Project Cost Analysis
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Exhibit R-3 Cost Analysis		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-4	PROGRAM ELEMENT NAME AND NUMBER 0603795N Gun Weapons System Technology	PROJECT NAME AND NUMBER Land Attack Missile System.....K2409

Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date			Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NAWC/WD, White Sands Missile Range, NM	.700			.500	10/99			1.625	2.825	
	WR	VAR	0			.290	10/99			.230	.520	
Operational Test & Evaluation	WR	NAWC/AD, Pt Mugu, CA	0			.030	10/99			3.900	3.930	
	WR	VAR	0			.030	10/99			.120	.150	
Tooling												
GFE												
Subtotal T&E			.700	0		.850				5.875	7.425	
Remarks:												
Contractor Engineering Support												
Government Engineering Support												
Program Management Support	VAR	VAR				.350	10/99			1.050	1.400	
Program Management Personnel												
Travel	PD	NAVSEA HQ	.010			.100	10/99			.200	.310	
Labor (Research Personnel)												
Overhead												
Subtotal Management			.010	0		.450				1.250	1.710	
Remarks:												
Total Cost			2.700			21.838				37.093	61.631	
Remarks:												

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Exhibit R-3 Project Cost Analysis
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UNCLASSIFIED